MIN 20 TOOM &

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

(Attorney Docket No. 107475.122)

PATENT & TE				
In re Applicat	ion of:	Forster et al.)	Examiner: Not Yet Assigned
Serial No:	10/629	9,125)))	Art Unit: 2171
Filed:	July 29	9, 2003)	
2011		ORATION SYSTEM AND MET ************* CERTIFICATE OF FIRST CLAS	*****	**************************************
		respondence is being deposited with th P.O. Box 1450, Alexandria, VA 22313-		ates Postal Service as First Class Mail addressed to e date below. Sarah Farris
*******	*****	*********	*****	**********

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

TRANSMITTAL LETTER

Dear Sir:

Enclosed for filing in the above-identified patent application are the following documents:

- 1. Information Disclosure Statement (2 pages);
- 2. Form PTO-1449 (4 Pages);
- 3. Certificate of First Class Mailing; and
- 4. Return Postcard.

No fees are believed to be due in connection with this submission; however, please charge any fees that might be due or credit any overpayment to our Deposit Account No. 08-0219. If there are any questions, please call the undersigned at the number below.

Respectfully submitted,

Peter M. Dichiara, Reg. No. 38,005 Attorney/Agent for Applicants

5/18/04

Date: HALE AND DORR LLP
60 State Street
Boston, MA 02109
(617) 526-6000
(617) 526-5000 (Facsimile)

BOSTON 1906738v1

MM 2 0 700 ME PATENTS THE APPL

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

(Attorney Docket No. 107475.122)

: <	\$ J		(Attorney Dock	ci IVO. IO	7473.122)
ENT &	e Application	on of:	Forster et al.)	Examiner: Not Yet Assigned
Ser File	ial No:	10/629 July 29	9,125 9, 2003)))	Art Unit: 2171
For	: DATA	•	DRATION SYSTEM AND M	ETHOD	
***	******	*****	*********	******	**********
			CERTIFICATE OF FIRST CLA	SS MAIL	ING UNDER 37 CFR §1.8
	nmissioner for 5/19		respondence is being deposited with P.O. Box 1450, Alexandria, VA 2231		States Postal Service as First Class Mail addressed to: the date below. Sarah Farris
***	******	*****	********	******	***********
P.C	mmissioner i D. Box 1450 exandria VA				

INFORMATION DISCLOSURE STATEMENT

Dear Sir:

Pursuant to 37 C.F.R., Applicants submit herewith the attached Form PTO-1449 for filing in the above-referenced application. The present application is a continuation of U.S. Patent Application No. 09/166,556 (now U.S. Patent No. 6,601,058). The Form PTO-1449 lists references that were already submitted by the Applicants and cited by the Examiner in the parent application; therefore, pursuant to 37 C.F.R. § 1.98 (d), no copies of the previously cited art are enclosed. This Information Disclosure Statement is being filed under 37 C.F.R. § 1.97 (b) before the mailing date of the first Office Action, therefore no fee is believed to be due.

This submission does not represent that a search has been made and does not constitute an admission that the listed documents are material to the patentability of the invention, or that the listed documents are prior art. Applicants reserve the right to take appropriate action to establish the patentability of the disclosed invention over the listed documents, should one or more of the documents be applied against the claims of the present application. If it should be determined that any of the listed documents constitute prior art under United States law, Applicants reserve the right to present to the Office relevant facts and law regarding the significance of such documents to the patentability of the claimed invention.

It is respectfully requested that the Examiner initial and return copies of the enclosed Form PTO-1449 with the next Patent Office communication. U.S. Patent Application No. 10/629,125 Information Disclosure Statement Page Two

Please charge any fees that might be due in connection with this matter to Deposit Account No. 08-0219. If there are any questions, please call the undersigned at the telephone number indicated below.

Date: _5/16/04

HALE AND DORR LLP 60 State Street Boston, MA 02109 (617) 526-6000 (617) 526-5000 (Facsimile) Respectfully submitted,

Peter M. Dichiara, Reg. No. 38,005 Attorney/Agent for Applicants MM 50 July

Subt. For, PTO-1449

INFORMATION DISCLOSURE IN AN APPLICATION

(Use several sheets if necessary)

Docket Number 107475.122

Application Number 09/166,556

Applicant Forster et al.

Filing Date

Group Art Unit

Sheet 1 OF 4

October 5, 1998

2172

	U.S. Patent Documents						
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
	4,989,132	1/1991	Mellender et al.	364	200		
	5,019,961	5/1991	Addesso et al.	364	192		
	5,121,494	6/1992	Dias et al.	395	600		
	5,193,185	3/1993	Lanter	395	600		
	5,226,111	7/1993	Black et al.	395	54		
	5,259,066	11/1993	Schmidt	395	54		
·	5,276,870	1/1994	Shan et al.	395	600		
	5,301,317	4/1994	Lohman et al.	395	600		
	5,307,445	4/1994	Dalal et al.	395	66		
	5,325,525	6/1994	Shan et al.	395	650		
	5,418,942	5/1995	Krawchuk et al.	395	600		
	5,418,943	5/1995	Borgida et al.	707	4		
	5,469,568	11/1995	Shiefer et al.	395	600		

Foreign Patent Documents							
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANS YES	LATION NO
			<u> </u>				

	Other Documents (Including Author, Title, Date Pertinent Pages, Etc.)
A 1	Alsabbagh et al., 1992 IEEE Second International Workshop on Research Issues on Data Engineering: Transaction and Query Processing," A Framework for Multiple-Query Optimization," pp. 157-162.
A2	Alzahrani, R.M. et al., 1995 IEEE Ride-DOM '95 Fifth International Workshop on Research Issues in Data Engineering- Distributed Object Management, "A Rule-Based Query Processor for a Heterogenous Object-Oriented Database Environment-Overview" pp. 86-90.
А3	Ayres, R. et al., Advances in Databases, 14 th British National Conference on Databases BNCOD 14, Edinburgh, United Kingdom, Jul. 3-5, 1996 Proceedings, "Querying Graph Databases Using a Functional Language Extended with Second Order Facilities," pp. 189-203.
A 4	Balkir, N.H. et al., "Visual: a graphical icon-based query language", Proceedings of the Twelfth International Conference on Data Engineering (Cat. NO. 96CB3588), New Orleans, LA, Feb. 26-Mar. 1, 1996, pp. 524-533.

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation is considered, whether or not citation is in conformance with MPEP § 609: Draw Line through citation if not conformance and not considered. Include copy with next communication to applicant.

MAY 2 0 TON S

Sgbt. For, PTO-1449

INFORMATION DISCLOSURE IN AN APPLICATION

Docket Number 107475.122

Application Number 09/166,556

Applicant Forster et al.

(Use several sheets if necessary)

Filing Date

Group Art Unit

Sheet

2 OF

4

October 5, 1998

2172

	U.S. Patent Documents						
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
	5,481,700	1/1996	Thuraisingham	395	600		
	5,495,606	2/1996	Borden et al.	395	600		
	5,515,531	5/1996	Fujiwara et al.	395	600		
	5,537,590	7/1996	Amado	395	600		
	5,542,073	7/1996	Schiefer et al.	395	600		
	5,546,571	8/1996	Shan et al.	395	600	<u> </u>	
	5,548,749	8/1996	Kroenke et al.	395	600		
	5,548,755	8/1996	Leung et al.	395	600		
	5,548,770	8/1996	Bridges	395	800		
	5,550,971	8/1996	Brunner et al.	345	762		
	5,555,404	9/1996	Torbjornsen et al.	395	600		
	5,560,006	9/1996	Layden et al.	395	600		
	5,574,900	11/1996	Huang et al.	395	601		
	5,590,319	12/1996	Cohen et al.	395	604		

Foreign Patent Documents							
EXAMINER	DOCUMENT	DATE	COUNTRY	CLASS	SUBCLASS		LATION
INITIAL	NUMBER					YES	NO

	Other Documents (Including Author, Title, Date Pertinent Pages, Etc.)
A 5	Barsalou, T. et al., 1992 IEEE Eighth International Conference on Data Engineering, "M(DM): An Open Framework for Interoperation of Multimodel Multidatabase Systems", pp. 218-227.
A6	Benedikt, M. et al., 1996 IEEE Proceedings 11 th Annual Symposium on Logic in Computer Science, "On the Structure of Queries in Constraint Query Languages," pp. 25-34.
A7	Bucci, G. et al., Fall 1994 IEEE MultiMedia, "Sharing Multimedia Data Over a Client-Server Network" pp. 44-54.
A8	Carey, M.L. et al., 1995 IEEE Ride-DOM '95, Fifth Annual Workshop on Research Issues in Data Engineering-Distributed Object Management, "Towards Heterogeneous Multimedia Information Systems: The Garlic Approach," pp. 124-131.
A9	Chamberlin, D.D., "Using the new DB2: IBM's object-relational database system,", ISBN 1-55860-373-5, Morgan Kaufmann Series in Data Management Systems, Morgan Kaufmann Publishers, 1996, pp. 647-651.

EX	Ά	M	۱	Ν	Ε	R

DATE CONSIDERED

EXAMINER: Initial if citation is considered, whether or not citation is in conformance with MPEP § 609: Draw Line through citation if not conformance and not considered. Include copy with next communication to applicant.

5 bt. For, PTO-1449

INFORMATION DISCLOSURE IN AN APPLICATION

(Use several sheets if necessary)

Docket Number 107475.122

Application Number 09/166,556

Applicant Forster et al.

Filing Date

Group Art Unit

Sheet

3

OF 4 October 5, 1998

2172

A10	Chemicack, M. et al., Jun. 1996 SIGMOD Record, vol. 25, Issue 2, "Rule Languages and Internal Algebras for Rule-Based Optimizers", pp. 401-412.
A11	Chen, W. et al., 1995 Proceedings 5 th International Conference Database Theory-ICDT '95, "Sorted HiLog: Sorts in Higher-Order Logic Data Languages", pp. 252-265.
A12	structure" (paper) , pp. 557-564.
A13	Childs, D.L., 1969 Information Processing 68-North-Holland Publishing Company-Amsterdam, "Feasibility of a Set-Theoretic Data Structure a General Structure Based on a Reconstituted Definition of Relation", pp. 420-431.
A14	Childs, D.L., Paper Entitled, "Extended Set Theory A General Model for Very Large, Distributed, Backend Information Systems" (21 pages).
A15	Colajanni et al., 1997 IEEE Proceeding of the 17 th Annual International Conference on Distributed Computing Systems, "Scheduling Algorithms for Distributed Web Servers", pp. 169-176.
A16	DeMichel, et al., 1993 IEEE Ninth Annual Conference on Data Engineering, Apr. 19-23, 1993, "Polyglol: Extensions to Relational Databases for Sharable Types and Function in a Multi-Language Environment", pp. 651-660.
A17	Intelligence Applications, "Set-Oriented Constructs for Rule-Based Systems", pp. 76-80.
A18	Transformations", Article No. SS971454, pp. 98-112.
A19	Tool for Specifying Data Models, Query Processing, and Optimization", pp. 277-286.
A20	Programming Language for Disjunctive Information and its Applications", pp. 641-650.
A21	Gunter, E. et al., 1995 8 th International Workshop on Higher Order Logic Theorem Proving and Its Applications, "Interfacing HOL90 with a Functional Database Query Language", pp. 170-185.
A22	Imielinski, T. et al., 1984 IEEE 4 th Annual Jerusalem Conference on Information Technology (JCIT), Next Decade in Information Technology, "Towards a Flexible User Inferface to Relational Database Systems: Processing Simple Second Order Queries", pp. 358-367.
A23	"InfoSleuth: Agent-based Semantic Integration of Information in Open and Dynamic Environment," Bayardo et al., Proceedings of the 1997 International Conference on Management of Data Symposium on Principles of Database Systems, Jun. 1997, ACM, pp. 195-206.

EVAMINED	DATE CONSIDERED
EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation is considered, whether or not citation is in conformance with MPEP § 609: Draw Line through citation if not conformance and not considered. Include copy with next communication to applicant.

INFORMATION DISCLOSURE IN AN APPLICATION				Docket Number 107475.122	Application Number 09/166,556
				Applicant Forster et al.	
(Use several sheets if necessary)			essary)	Filing Date	Group Art Unit
Sheet	4	OF	4	October 5, 1998	2172

A24	Morishima et al., Advanced Database Research and Development Series- vol. 6, 1997 World Scientific Database Systems for Advanced Applications '97 "A Data Modeling and Query Processing Scheme for intergrations of Structured Document Repositories and Rational Databases", pp. 145-154.
A25	Muth, P. et al., 1992 IEEE Second International Workshop on Research Issues on Data Engineering: Transaction and Query Processing, "How to Handle Global Transactions in Heterogeneous Data Systems", pp. 192-198.
A26	"Observer: An Approach for Query Processing in Global Information Systems based on Interoperation across Pre-existing Ontologies," Mena et al., Proceedings of the 1996 First International Conference on Cooperative Information Systems, IEEE, pp. 14-25, Jun., 1996.
A27	Ozden, B. et al., 1997 Proceedings on the Sixteenth ACM SIGACT-SIGMOD-SIGART Symposium on Principles of Database Systems," Multimedia Support for Databases", pp. 1-11.
A28	Park, K.K., et al., 1995 IEEE Ride-DOM '95 Fifth International Workshop on Research Issues in Data Engineering Distributed Object Management," System Abstraction and Interface for the Interoperable Server Objects in OMEGA", pp. 132-139.
A29	PCT International Search Report corresponding to International Application No. PCT/US99/22148; Authorized Officer: Fournier, C.; Date of Completion: Feb. 29, 2000; Date of Mailing: Mar. 16, 2000 (3 pages).
A30	Ross, K., 1992 ACM Press Proceedings of the Eleventh Annual ACM SIGACT- SIGMOD-SIGART Symposium on Principals of Database Systems, "Relations with Relation Names as Arguments: Algebra and Calculus", pp. 346-353.
A31	Thimm, H. et al., 1996 IEEE Twelfth International Conference on Data Engineering, "S- Sets for Optimized Reactive Adaptive Playout Management in Distributed Multimedia Database Systems", pp. 584-592.
A32	Widom, J., Sep. 1992 SIGMOD Record, vol. 21, No.3, "A Denotational Semantics for the Starburst Production Rule Language," pp. 4-9.
A33	Wilschut et al., Jun. 1995 SIGMOD Record, vol. 24, Issue 2, "Parallel Evaluation of Multi-Join Queries", pp. 115-126.
A34	Yoshitaka, A. et al., Winter 1994 IEEE MultiMedia, "Knowledge-Assisted Content-Based Retrieval for Multimedia Databases", pp. 12-20.
A35	Zhang et al., Feb. 1995 IEEE Transactions on Knowledge and Data Engineering, vol. 7, No. 1, "Data Partition and Parallel Evaluation of Datalog Programs", pp. 163-176.

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation is considered, whether or not citation is in conformance with MPEP § 609: Draw Line through citation if not conformance and not considered. Include copy with next communication to applicant.